

Lummi Natural Resources Department (LNR) wishes to solicit proposals for the acquisition and delivery of logs and woody material for construction of a habitat restoration project in the South Fork Nooksack River: Lower Fobes Reach Phase 2 Restoration. This project is to be constructed in the summer of 2022. The site is located between river miles 18.2 to 18.9 of the South Fork (Figures 1 and 2 in the RFP). All woody material required for construction of project elements shall be furnished by the Contractor, delivered to the designated staging area, sorted according to type, and accepted by LNR. The staging area for this project sits within land owned by Sierra Pacific Industries (SPI).

Project activities will include:

1. Acquiring all woody material per the applicable specifications herein.
2. Transporting all woody material to the staging area.
3. Offloading transported woody material for inspection.
 - a. Material that does not meet the specifications herein will be rejected and no payment will be made until acceptable replacement material(s) are provided.
4. Staging woody material by type.
5. Repair of any and all damage to private property which occur as a result of Contractor actions.

Wood Material Specifications

General Requirements

All woody material shall be green (harvested within 1 year of delivery). All required logs, with or without rootwads, shall be of sound quality and free of cracks, checks, splits, rot, unsound knots, infestations, decay, or defects that may materially impair the strength or durability of the log as determined by LNR or the Project Engineer (Natural Systems Design). Wood material shall not be burned or charred. Rootwads shall be clean of excessive soil and rock, but washing is not required. All logs shall be free of preservatives and deleterious materials. Treated materials are not acceptable. Split trunks are not allowed. All logs shall have limbs removed.

Certification of log grades will not be required but may be done if poor quality logs are encountered. Costs for the grading will be paid by the Contractor at no additional cost to LNR. Any wood material found to not meet specifications or found to be defective shall be removed from the site and replaced at no cost to LNR.

Logs shall be measured from both ends to ensure specifications are met. The length of each log and racking log is defined as an actual measured length, including rootwad if appropriate (see below). Log dimensions shown in Table 1 and Table 2 do not include bark thickness, i.e., if bark is present on the logs the bark thickness shall be subtracted from the log diameter when measuring logs to ensure they conform to size specifications. Bark shall remain intact to the extent possible given the mechanics of handling the logs. If necessary to estimate bark thickness, the Contractor shall randomly sample a minimum of three logs based on log type and species to determine an average bark thickness.

Species for all RB-3, PE-25, and PE-2 logs shall be 100% Douglas fir (*Pseudotsuga menziesii*). The remaining logs (with and without rootwads) shall be Douglas fir or Western red cedar (*Thuja plicata*). Deciduous trees, western or mountain hemlock and other species not explicitly mentioned will not be accepted.

All logs (with the exception of racking logs) shall be clearly and legibly marked in paint at two locations: one on the cut end, and one on the trunk of the log. Separate colors shall be used for each diameter size class (e.g., one color for all RD- and D- logs, a separate color for all RE- and E- logs, and so on).

For each delivery to the project site, the Contractor shall provide LNR with a breakdown of the material delivered on that load. The Contractor shall unload all woody material, sort all material according to log type, and stage all material at a location within the staging area identified by LNR which is specifically designated for the log type or material type being delivered.

Logs Without Rootwads

Logs without rootwads shall conform to the size requirements specified in the Log Schedule where the specified diameter refers to the diameter measured within 4 feet of the largest cut end (butt) of the log. The length specified in the Log Schedule for logs without rootwads shall be measured from the smaller cut end (tip) of the log to the butt of the log. The minimum tip diameter of the log shall vary by log type; each log shall meet the minimum tip diameters specified in the Table 1.

Table 1. Size requirements for logs without rootwads

Log Type	Length (ft)	Minimum Butt Diameter (inches)	Minimum Tip Diameter (inches)
D-6	60	18 – 22	12
D-5	50	18 – 22	12
D-4	40	18 – 22	13
D-3	30	18 – 22	14
PE-25	25	16 – 18	12
PE-2	20	16 – 18	13

Logs With Rootwads

Rootwad logs shall consist of a trunk section with a natural, large, full, intact, and complex rootwad structure containing multiple branches (roots) extending outward around the entire circumference of the rootwad structure. Rootwads shall be intact with a minimum of three primary roots strong enough to support the trunk of the log when laying horizontally. If in the opinion of LNR or the Project Engineer upon inspection that a rootwad log has a sparse or otherwise compromised root structure, said log will not be accepted as a rootwad log, but it may be acceptable as traditional log (log without rootwad) upon approval.

Rootwad logs shall be harvested in such a manner that prevents cracking, slabbing, or splitting of any portion of the rootwad or log. Partially or fully excavating the root system of a standing tree in favor of pushing over a standing tree typically results in fuller root systems and less damage to the rootwad or trunk at the time of harvest. Rootwad logs with which do not meet the requirements of this section may be rejected and shall be replaced at no additional cost to LNR.

Rootwad logs shall conform to the size requirements specified in the Log Schedule where the specified diameter refers to the diameter of the trunk section measured at the Diameter-at-Breast-Height (DBH) defined as 4.5 feet above ground when the log was standing. Rootwad Logs shall have a minimum diameter from tip-to-tip of the multiple branch root structure (rootwad) of 4 to 6 feet for an 18-inch minimum diameter log, and 6 to 8 feet for a 22-inch minimum diameter log, determined as measuring

from tip-to-tip through the centerline of the bole from roots which are large enough to support the weight of the log while resting on the ground (Figure 1). The length specified in the Log Schedule for rootwad logs shall be measured from the end (or bottom) of the root structure to the other cut end (tip) of the log. The minimum tip diameter of the log shall vary by log type; each log shall meet the minimum tip diameters specified in Table 2.



Figure 1. Example of rootwad diameter measurement

Table 2. Size requirements for logs with rootwads

Log Type	Length (ft)	Minimum DBH (inches)	Minimum Tip Diameter (inches)
RB-3	30	22 Min.	18
RD-5	50	18 – 22	12
RD-4	40	18 – 22	13
RD-3	30	18 – 22	14
RE-3	30	14 – 18	12

Racking Logs

Racking logs shall be 100% coniferous species with or without rootwads. Species can be any native northwest coniferous species. All racking logs shall have limbs removed. Grade can be Utility or Cull logs, in accordance with Official Rules of the Pacific Rim Log Scaling and Grading Bureau, Inc, Lacey WA. Racking logs shall be 30 to 40 feet in length, and their length shall be measured as described above for logs with and without rootwads, respectively. Racking Logs shall have minimum diameters of 6 to 12 inches as measured at the largest cut end; the minimum diameter at the cut end of any racking piece

shall be 4 inches. Racking Logs shall have the following size class percentages: 40% at 6 to 8 inches in diameter; 40% at 8 to 10 inches in diameter, and 20% at 10 to 12 inches in diameter based on visual inspection. The quantity of individual racking logs included in the Log Schedule is based on this range of diameters and the total quantity required may be increased to without additional compensation paid to the Contractor if racking logs delivered to the site do not fall within reason ($\pm 5\%$ of each diameter class) of the specified size class percentages.

Slash

Slash Material shall be composed of coniferous trees, saplings, roots, limbs, branches, brush and tree tops generated during land clearing or timber harvest activities and can be any native northwest coniferous species. Slash Material may be of various sizes less than 6 inches in diameter. Slash Materials shall not contain aggregates or soil. Slash Material passing a 4-inch sieve shall not exceed 10% of the total slash material by volume and shall not contain silty or clayey material that could cause turbidity when placed in water. Slash Material shall be free of invasive species such as knotweed, Himalayan blackberry, Scotch broom or other species designated as a noxious weed by the Washington State Noxious Weed Control Board or Whatcom County's Noxious Weed Program. Slash material shall be compacted prior to delivery such that one cubic yard of slash weighs 570 pounds per cubic yard. LNR reserves the right to withhold payment for slash material if a visual inspection of slash material indicates inadequate compaction prior to transport in the absence of data provided by the Contractor to approximate the unit weight of compacted slash (full and empty scale weights with a known delivery volume).

Site Maintenance and Repair

The Contractor shall be responsible for all cost and effort associated with maintaining ground conditions within the staging area in a favorable condition prior to and during all materials delivery and stockpiling operations. If unfavorable or muddy conditions are encountered, the Contractor shall stabilize and restore any depressions or disturbances to the ground surface prior to resuming operations. If import of material is required, the Contractor shall furnish, place, and maintain hog fuel as necessary on a time and materials cost basis negotiated with LNR and the Project Engineer.

The Contractor shall be fully responsible for any damages which occur to existing private infrastructure (gates, forest roads, bridges, etc.) as a result of Contractor actions or lack of due diligence.

Log Staging Timeline

Woody material shall not be delivered until the Lummi Indian Business Council (LIBC) Contract and Notice to Proceed are finalized. It typically takes one month between selecting a winning bid and finalizing the Contract. We anticipate the earliest logs could be staged would be June 1, 2022, depending on the road access agreement with SPI and permits. Time is of the essence with river restoration projects, and the project will incur additional costs if logs are not delivered on time. Accordingly, LNR and the Contractor agree that as liquidated damages for the delay, and not as a penalty, the Contractor shall pay LNR \$1,000 for each day beyond the staging completion date of July 15, 2022 that all woody materials are not entirely delivered as required in this Contract. The Contractor authorizes LNR to deduct these liquidated damages from any money or sums due to the Contractor. The Contractor further agrees that in the alternative, LNR may seek actual damages for the Contractor's breach, which sum may be proved and fixed by the Tribal Court.

Payment

The Contractor shall obtain required quantities of woody materials meeting the specifications herein, deliver them to the identified staging area, sort accepted materials according to type, replace any rejected materials, and maintain the staging area in an orderly manner. Payment for logs will be made per each log delivered, unloaded, accepted, and stockpiled as required herein; payment for logs will be specific to each log type. Payment for slash will be made on a per cubic yard basis for material which meets the requirements herein and is delivered and stockpiled at the staging area.

Any costs associated with adaptive management or repair of the existing ground surface due to weak or saturated soils at the staging area will be made on a time and materials basis using rate(s) negotiated by the Contractor, LNR, and the Project Engineer.

Additional Work may be authorized by the Contracting Officer under the Minor Change task. When authorized, the Contractor and LNR shall agree on the scope and associated cost prior to performing any authorized Work.

All costs for mobilization and administrative work associated with contracting shall be made incidental to other items within the contract.

Site Visits:

If you are interested in conducting a site visit to the South Fork staging site, please contact Alex Levell or Chris Phair by February 28th,

Alex 360-410-1988 or alexL@lummi-nsn.gov

Chris 360-815-7639 or chrisP@lummi-nsn.gov

Proposal Submittal

All proposals shall be submitted to the Lummi Natural Resources Office by March 15, 2022 at 3:00 PM PDT (please see Bid Proposal Instructions below).

Submit your proposal via email (preferred method) to:
alexl@lummi-nsn.gov

Proposals may also be faxed to: (360) 380-6989

Proposals may be mailed to:
Attn: Alex Levell
Lummi Natural Resources Department
2665 Kwina Road
Bellingham, WA 98226